Frequently Asked Questions

for

FOPEN-GXP, DARPA-BAA-10-07

As of 3/22/10

Q33. Is there is a correction to the formula for the Doppler values derived from the Sample Data Set distributed via DVD?

A33. Yes. Please replace one line of the Matlab code provided on the DVD as follows:
Delete the line *doppler_Hz = (prf_Hz/NPulses)*(-NRanges/2):(NRanges/2-1))*
Replace with line *doppler_Hz = (prf_Hz/NPulses)*(-NPulses/2):(NPulses/2-1))*

Q32. What is the role of SRC in FOPEN-GXP? Will they bid?

A32. SRC is the radar prime and will operate & process the radar data OCONUS. It is SRC's decision whether to submit a proposal to this solicitation.

Q31. What impact do lightning ionizing events have on radar performance?

A31. To date, the radar has not flown in the presence of lightning.

Q30. Why was horizontal polarization chosen for the radar?

A30. This question is outside the scope of the BAA.

Q29. Is there FORESTER data collected in rain at various rain rates (up to 10cm/hr)?

A29. No, FORESTER data has not been collected in the rain (yet) for this program. It may be collected OCONUS and may be provided to FOPEN-GXP.

Q28. Is the primary FORESTER mission over tropical rain-forest or are northern snow-laden pine forests also being viewed in the CONOPS?

A28. Only tropical rain-forest is of interest in this program.

Q27. For the performance goals, most metrics are tied to a target speed > 1 m/s. Is this motion in any direction or in a radial direction to the sensor?

A27. This corresponds to the dismount target speed in any direction with respect to the sensor. The performance goals are to be achieved over a 4-minute observation period.

Q26. At what point in the program should the System Prime plan to integrate and deliver the MIT/LL risk reduction module?

A26. The Prime should plan to achieve the milestones indicated in the schedule, which specifies in Phase 1 a System v 0.5 at 6-months and System v1 at 12

months. Delivery, integration and test schedules will be synchronized across contractors at the kickoff meeting.

Q25. Will the FORESTER on-board radar signal processor be made available to support analysis (i.e., ascertain effects on raw, recorded data)?

A25. This will be decided by the System Integrator in coordination with the radar developer (SRC) and DARPA.

Q24. What is total amount of funding available to be awarded?

A24. DARPA does not wish to disclose the funding available. Offerors should propose a cost that is commensurate with accomplishing the proposed work on the timescale described in the BAA.

Q23. Is it intended that GXP reside on an existing associated workstation? If separate, is a common hardware platform desired?

A23. It is intended that the FOPEN-GXP system be hosted on one or more separate COTS workstations. No specific COTS workstation is specified, only that it be able to interface to the other ground components over standard interfaces as suggested in Figure 2 of the BAA.

Q22. Will there be additional data collections to support GXP objectives?

A22. There may be additional data collected OCONUS that may be provided to the FOPEN-GXP contractors for development and testing activities.

Q21. Can the FORESTER radar prime (SRC) bid on the FOPEN-GXP program?

A21. Yes

Q20. Regarding program dependencies on GFI sensor data and GFI software modules; when will these be available to awardees?

A20. GFI sensor data will be provided at the start of the Phase 1 contract and possibly later in Phases 1 & 2. GFI software is being developed by MIT Lincoln Laboratory and will be provided during the Phase 1 development period. Development & delivery schedules will be synchronized at the kickoff meeting.

Q19. Will DARPA arrange access to FORESTER sensor subject matter experts?

A19. No

Q18. Is there a Bidder's Library for access to FORESTER documents and DATA?

A18. FORESTER documents (including the Security Classification Guide) were provided on the Industry Day CD. Sample data collected with the FORESTER radar mounted on a Black Hawk helicopter is available (see Q14).

Q17. Has platform motion measurement accuracy been characterized (position, velocity accuracy, vibration, etc.)?

A.17. Yes

Q16. Have platform / sensor interactions been characterized?

A16. Yes, to some extent they have, including vibrations induced in the radar signals by the platform rotor; also the resulting bending oscillations of the antenna as measured by accelerometers in flight.

Q15. Will any type of raw data be made available for use on contract (raw = before range-Doppler compression)?

A15. Our expectation is to only make available STANAG 4607 and range-Doppler map data, however if the offeror demonstrates in their proposal a compelling reason to make available more data we will do this.

Q14. Will sample data be provided prior to the proposal? Will the exact format of the data / data cubes be provided?

A14. Yes, sample data is available in the form of pulse-compressed IQ data cubes from 18 CPIs, along with Matlab code to enable you to load in a file and convert this data to a range-Doppler map in specified units.

Q13. If an offeror proposes a methodology that does not result in producing "single target estimates", how can we relate this to your metrics for P_d and P_{FA}?

A13. The performance metrics specified relate to detection of “dismount activity” and false alarm rate of “dismount activity”. The performance metrics do not relate to the estimation of the particular number of dismounts involved in the activity.

Q12. Is it possible to "insert" a module between the radar and the GMTI detections produced by the on-board real-time signal processor? That is, will we be able to replace (or augment) the real-time processing chain used to go from raw radar returns to, say, STANAG 4607.

A12. This is addressed by the answer to Q6.

Q11. Is a DD-254 required to prepare a proposal?

A11. Yes, if you are submitting a classified addendum. A Solicitation DD-254 has been provided for download at www.fbo.gov.

Q10. What is MIT Lincoln Laboratory’s role on the program?

A10. MIT/LL will be disseminating data sets for development, self-test, and blind system testing. MIT/LL will also study the phenomenology of dismount Doppler signatures, and develop a Doppler Signature Discrimination module (to mitigate risk). The MIT/LL Discrimination module will be an alternative to the one or more Discrimination modules developed by the "team" and possibly independent developers. MIT/LL will work with the System Integrator to integrate their Discrimination module into the end-to-end system and support performance testing.

Q9. Is the radar data collected while the A160 platform is stationary?

A9. Yes, all GMTI and wideband data is collected during platform "hover" (stationary with respect to the ground). SAR stripmap data is collected while the platform is flying straight at constant speed.

Q8. Was radar data collected under varying weather, wind, time of day, etc.?

A8. All data was collected in good weather conditions (sunny or cloudy), daytime hours (900 – 1300 local time), mostly light wind and one day somewhat windy.

Q7. Can the classified charts from Industry Day be made available?

A7. No.

Q6. Is the radar real-time signal processor to be finalized in Phase 1 or Phase 2? Is it to be competed or awarded sole source?

A6: The answer to the first question depends on the success of the algorithms developed in Phase 1. The contracting approach for any real-time signal processor modifications, if any are required, has not been decided upon.

Q5. Is DARPA interested in receiving UNCLASSIFIED proposals from small businesses that have innovative ideas to address the topics in the BAA.

A5. Yes, this is explained in the BAA. Size of the business proposing is not an eligibility issue, however, ability to process and store classified data is a requirement. See Section III of the BAA for further information. If the offeror wishes to propose development of multiple exploitation modules, a separate proposal should be submitted for each module.

Q4. It is our understanding that under the General Security of Military Information agreement between the US and the UK, a "UK .FCL" is recognized by the US as a US equivalent clearance to Secret. Thus, is it correct that a US prime can place a US classified subcontract with a UK company possessing a .FCL?

A4. Yes. The U.S. prime is responsible to get an export license from the Department of State before they could share any unclassified/export controlled or classified information with their U.K. sub..

Q3. Will DARPA distribute a list of the Industry Day attendees for the purpose of making teaming arrangements?

A3. No, attendance at Industry Day is not public knowledge. DARPA has set up a Teaming Website for purposes of facilitating teaming, as described in the BAA.

Q2. Will there be opportunities for one-on-one or team discussions with the DARPA PM and his team at some point during this process?

A2. Yes, but they must occur prior the initial closing date for proposal submissions.

Q1. Is it DARPA's intent that Questions pertaining to the FOPEN-GXP BAA could be sent and potentially answered at some point during the acquisition process?

A1. Yes, unclassified questions may be submitted by email to **DARPA-BAA-10-07@darpa.mil;** they will be posted along with answers on this FAQs document. Classified questions must be submitted via classified fax, STE #s: 571-218-4516 or 703-526-6665, first call for voice then request to switch to fax, and provide info for classified reply by fax.